DOCUMENT RESUME

ED 249 815 FL 014 645

AUTHOR Madsen, Harold S.; Murray, Norma
TITLE Retrospective Evaluation of Testing in ESL Content and Skills Courses.
PUB DATE Mar 84
NOTE 22p.; Paper presented at the Annual Meeting of the Teachers of English to Speakers of Other Languages (18th, Houston, TX, March 6-11, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Comparative Analysis; *English (Second Language); Graduate Students; Higher Education; High School Students; *Language Tests; *Second Language Instruction; *Stress Variables; Student Attitudes; *Test Anxiety; Test Construction; Test Length; Test Wiseness

ABSTRACT

Two studies are presented: one study to complement previous empirical investigations in the field of English as a second language (ESL) concerning test anxiety by having examinees reflect on sources of stress during major examinations, and a comparison between anxiety factors in content and skills courses. In the first study, nine university students enrolled in two graduate courses in teaching ESL (methods and testing) were interviewed following their midterm exam and after having been administered a standardized anxiety instrument. In the second study, 17 pre-college ESL students from beginning to advanced language proficiency were interviewed following their placement exam and after having been administered the same anxiety measure. Findings disclosed that high anxiety students in both groups were troubled by similar factors, such as time constraints and exam length. In addition, student concerns went beyond the usual research interest in exam format to show that factors such as lack of familiarity with question types or perception of exam defects constitute important sources of stress. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED249815

Retrospective Evaluation of Testing in ESL Content and Skills Courses

Harold S. Madsen and Norma Murray

Brigham Young University

March 1984

Abstract

The major purpose of this research was to complement empirical ESL investigations of test anxiety by having examinees reflect on sources of stress during major examinations. In addition, a comparison between anxiety factors on content and skills courses was carried out. In the initial study, nine university students enrolled in two graduate TESL courses (methods and testing) were interviewed following their midterm and after having been administered a standardized anxiety instrument. In the second study, seventeen pre-college ESL students (from beginning to advanced language proficiency) were interviewed following their placement exam and after having been administered the same anxiety measure. Findings disclosed that high anxiety students in both groups were troubled by similar factors, such as time constraints and exam length. Moreover, concerns pushed beyond the usual research interest in exam form to show that matters such as lack of familiarity with question types or perception of exam defects constitute important sources of stress.

FL014 645

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

H. S. Madsen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Student affective responses to language tests have only recently been formally investigated. These studies have drawn heavily on the extensive test anxiety literature of psychologists, who during the past two decades have produced several hundred articles illuminating the constructs of anxiety as well as causes and solutions. As varied as these studies have been, nearly all have employed classical empirical research with its hypothesis-testing orientation and quantitative characteristics. The present studies seek to extend and complement earlier findings by utilizing a qualitative research approach, with an emphasis on retrospection.

An important construct in the area of exam affect is the degree of permanence in the emotive response that subjects experience--namely trait and state anxiety. Trait anxiety consists of one's general inclination towards anxiousness while under stress, notably stress from any kind of test. Trait anxiety, on the other hand, is task specific; it varies with the specific testing situation at hand (Spielberger 1966, Wildemuth 1977).

The former has been extensively investigated and profiles created of high anxiety (HA) and low anxiety (LA) subjects. For example, LA individuals consistently score better on many different measures than HA persons do (Holmes 1972, Rosenzweig 1974). And females tend to be more anxiety prone than males do (Tryon and others 1973, Morris and others 1976).

But state anxiety has certainly not been ignored. Studies include the impact of retesting (Cohen 1971), feedback on test performance (Prestwood and Weiss 1978), unannounced exams (Warner and Kauffman 1972), and others.

Another construct formulated by psychologists is the debilitating-facilitating distinction in emotive affect. By its very nature, anxiety had been assumed to be debilitating to test takers. But almost a quarter of a century ago, a distinction was made between stress that was helpful or "facilitating" and that which was "debilitating" (Alpert and Haber 1960). Since then, various studies have improved our understanding of the facilitating-debilitating construct by applying it to matters such as academic performance (Gaudry and Spielberger 1971, Scovel 1978).

In the area of second-language test-"impact" studies, the focus has been largely on state anxiety: Anecodotal reports have provided insights on student reaction to test form (Savignon 1972, Mullen 1979) and even on the language of distractors (Groot 1976). While at least one formal study looked at the effect of NL distractors (Maluf 1979), much more attention has been given to the impact of various question types (Stevenson 1979, Jones and others 1980, Shohamy 1980, Madsen and others 1984).1

---

[1] State anxiety findings such as sex differences and national differences in anxiety ratings (Scott and Madsen 1983) have tended to be of only secondary interest. There has been only one ESL/FL study touching on the facilitating-debilitating construct issue (see Madsen 1982).

Moderator variables have included proficiency level, ability or aptitude, sex, language background, credit versus noncredit

coursework, the language subskill being evaluated, and practice effect.

Second-language, state-anxiety investigations, then, have tended to pursue the initial concern over the impact of certain test forms--quantifying the stress triggered by each type of question and evaluating this stress in relation to variables selected by the experimenter. As useful as the insights from such studies has been, it now appears that those of us investigating test affect have shackled ourselves by utilizing a single research paradigm involving only quantitative, empirical investigation.

In other areas such as second-language acquisition and language teaching, scholars have been more creative. Here, researchers have utilized qualitative procedures including the ethnographic techniques of anthropologists (Ochsner 1979, Long 1980) so that processes and interaction can be observed (Larsen-Freeman 1981, Gaies 1983, Allwright 1983), participant observation recorded (Schumann and Schumann 1977, Bailey 1980), and even mentalistic language-processing strategies investigated, through introspection and retrospection (Cohen and Hosenfeld 1981, Radford 1974). Such investigations are often hypothesis generating, relying on insights derived from the learner rather than suppositions posed by the researcher.

These features of qualitative research seemed ideal for complementing and extending the test affect studies conducted to date. While introspection has been used successfully in medias res (Zamel 1983), it was not feasible, of course, to interact with students during an actual examination. Retrospection,

then, was the more logical research strategy, since investigators would not need to disrupt the testing situation.

Among the interview procedures available, the general interview guide approach appeared most useful for collecting retrospective information that could be compared across subjects (Patton 1980:198-206). The check-list used with this procedure allows for spontaneity, flexibility and conversational interaction but helps assure comprehensive and systematic data collection.

Study One

One purpose of the initial study was to evaluate the midterm tests in two college ESL classes. A second was to explore student reactions to such tests by utilizing personal interviews to generate retrospective data. While still interested in the impact of various question types, we saw a need to learn what additional factors give concern to test takers.

Subjects. This initial study involved nine students enrolled in Advanced ESL Methodology, a graduate TESL course; seven of these students were concurrently enrolled in the ESL Testing course. Both classes were taught by the first author. Of these six women and three men (all in their twenties), four were native Japanese speakers, and five native English speakers--one from Canada and the remaining four from the United States; one of these four had a FL-speaking parent and a native English speaking parent.

Procedure. To help evaluate student reactions to their exams, a standardized anxiety inventory was administered to each student--the Alpert-Haber Achievement Anxiety Test. The

AAT includes ten items that measure debilitating anxiety (such as "Nervousness while taking an exam or test hinders me from doing well"), nine items that measure facilitating anxiety (for example, "I work most effectively under pressure as when the task is very important"), plus neutral items; all three types are scrambled. Responses are marked on a five-point Likert-type scale, ranging from "almost never" to "almost always." Results indicate the amount of trait anxiety characterizing each student.

After taking each of the two midterms, students completed a state anxiety questionnaire related to each of the five subtests, which involved different question types ranging from multiple-choice to short-paragraph items. For each test form they responded on a five-point Likert-type scale (ranging from "strongly agree" to "strongly disagree") to the following statements: (1) I liked the test, (2) This test was difficult, (3) I felt pleasant (happy, calm) during this test. These are adaptations of the items that factor analysis had shown to be highly emotive on the Jones-Madsen Affect Questionnaire (Jones and others 1980).

Finally, an informal, exploratory interview was conducted with each student, following Patton's "general interview guide approach." Ranging from twenty to forty-five minutes, the interviews averaged 30 minutes apiece. Students were informed of the purpose of the interview and invited to comment on any test-related matters that came to mind. (Since answers to specific questions had been discussed in class, interview sessions were not devoted to this.) The initial couple of interviews were

very extensive, in order to discover the broadest possible range of student concerns. Extensive notes were taken during the interview, but no taping was done. Key items were then referred to in subsequent interviews, for purposes of comparison. But every effort was made to keep the discussions informal and open-ended.

Findings and discussion. The median test anxiety score for the nine students was 30 (the mean, 30.8). All four of the students below the median (scores ranging from 17 to 23) had two English-speaking parents. Three of the four higher-anxiety students (scores ranging from 39 to 47) had one or two FL-speaking parents.[2] As might be anticipated, native English

---

[2]The lowest possible test anxiety score would be 10; the highest possible score would be 50. The higher the score the greater the amount of anxiety experienced in taking tests. Scores in this pilot study group ranged from 17 to 47.

---

speakers evidenced less test anxiety than foreign students did.

Foreign students felt they could perform more successfully on objective items than on completion and essay questions. But the least-anxiety-prone Japanese student said she preferred questions requiring writing because of the "flexibility" permitted, even though she tended to do better on multiple-choice items. Some NL English speakers expressed little preference for any specific exam type, approving of a variety of test forms. But one of these people noted that her humanities background enabled

her to perform reasonably well on essay-type in class.

The state-anxiety questionnaire ratings indicate that the short paragraph response item was the most stressful format. On an absolute scale, this was the only measure that registered in the + Anxiety range (above 9.0) on both midterms.

The interviews were very helpful in interpreting these findings: As we have seen, FL students tended to be insecure when expressing themselves in writing. And other factors emerged. More than one student indicated why the paragraph items, which concluded each test, were so stressful: They simply "covered more difficult material." The highest scoring student indicated she was more comfortable with the multiple-choice items than with the paragraph questions simply because she knew the content of that section better. Some indicated a need for the professor to clarify the instructions for paragraph items. For example, a low-anxiety student who expressed no difficulty with any of the question types said he was troubled with this section because he was not clear on either the length of response required or the specificity expected. A Japanese girl indicated she was not accustomed to this format. Probably the only direct criticism of the paragraph items by a native English speaker came from a high-anxiety student who said they were too time consuming: "A person could go on and on" in answering them. In short, student reactions varied considerably, and most of the objections to the anxiety-producing paragraph items were related to matters other than their form.

Besides investigating the impact of test <u>form</u>, the pilot

study also sought to determine whether or not the academic subject being tested made a difference in the anxiety experienced by students. Seven students concurrently enrolled in both classes were evaluated. The form of the two examinations was essentially the same, and both classes were taught by the same teacher. Unfortunately, it was not practical to have half of the students take the testing midterm first and half the methodology midterm first. Results from the state-anxiety questionnaire, reflect little difference in overall preference. But during the interviews, six of the seven persons enrolled in the two classes indicated that the testing exam was decidedly more anxiety producing.

Students indicated more than one reason for the reduced stress experienced on the methods exam. Five persons explained that the experience of taking the first test, plus the feedback received when the test was discussed in class, significantly helped them in taking the second exam. There was broad agreement on the value of practice effect as far as test format is concerned. During the interviews, five students also indicated that the content of the second exam was more familiar and less threatening. Two individuals felt there was less material to be accountable for on the second test. Another admitted that she was more nervous on the first test simply because she hadn't taken the time to prepare for it adequately.

In addition to commenting on test form and anxiety associated with a specific subject matter test, interviewees reflected on other matters, such as the effect of the unusual length of the tests. All four of the HA students indicated that exam

length was stressful, while LA students had little to say about length. Students also commented on exam "hangups." High test anxiety students tended to focus on difficulties associated with cramming. Only two students said they were free of exam hangups, and these were LA students.

Interviewees indicated, as well, their times of greatest stress when taking the midterms. Six of the nine subjects said they experienced greatest stress at the beginning of the exams. Two LA students experienced more stress midway through the test than at the beginning. And four mentioned some anxiety at or near the end of the test; but the reasons for this are illuminating: One said she was late in picking up her husband from work; another said it was the difficult paragraph section that troubled him; a third said the last part of any test was stressful when it was timed; and a fourth person said she experienced anxiety at the conclusion when she began to wonder if she had responded correctly throughout the test. But generally, the greatest stress on the exams occurred initially.

Interview sessions also dealt with factors that contributed to the reduction of anxiety. All referred to the special handouts which gave the format and content of each section of the test as well as sample items and the points for each section. Eight of the nine approved of the handout. However, the four HA persons found this more useful than did the LA students. The anxiety-prone likewise expressed great appreciation for removal of time constraints, whereas only one LA person commented on this. And HA people were also unanimous in favoring the exam's being

administered at the university testing center instead of in the regular classroom, with just one LA student advocating this arrangement. A typical HA interviewee who strongly favored the anonymity of the Testing Center said of the classroom setting: "When you're surrounded by competitors, you see when they turn each page--how fast they work--and this makes you nervous."

Departing from the test affect issue, examinees described test-taking strategies. Interestingly, four out of the five HA people indicated that they surveyed the test before answering any questions. Only one of the low-anxiety group included this as a testtaking strategy. Seven of the nine students in the study said they worked straight through the exams with no skipping about to answer easier questions; the other two failed to comment on their strategy. Two persons mentioned the tagging of questions needing further attention.

Only a few discussed strategies used in preparing for exams. The highest scoring student preferred individual study. The two mentioning a preference for group study were both anxiety-prone students.

Finally, students suggested ways in which the midterm tests could be improved. These included clearer instructions for the sentence response and paragraph items, shifting of objective items to the end of the exam, reducing the number of paragraph questions, and providing more space for responses.

Study Two

A follow-up study was conducted to compare responses from

non-university overseas students enrolled in ESL skills classes with those in Study One where university students were enrolled in graduate-level content courses.3 In addition, the number

---

[3]To familiarize herself with the interview guide approach, the second author conducted at the BYU English Language Center a preliminary study of 24 ESL students, who responded to questions on their midterm exam. Like Stevenson (1979), she found little anxiety on this diagnostic progress test since it didn't affect level placement or promotion.

---

of subjects was increased.

Subjects. Seventeen ESL students were randomly selected at the BYU English Language Center: 6 males and 11 females. They included 8 Spanish speakers, 2 Japanese, 2 Koreans, 1 Chinese, 1 Dane, and 1 Portuguese; and they ranged from near beginning to advanced (over 500 on the TOEFL).

Procedure. Students were administered the five-part BYU ELC Placement Battery. This included a guided oral interview, a multiple-choice grammar section, reading comprehension, dictation, and multiple-choice listening section.

To assess trait anxiety, subjects were administered the Alpert-Haber Achievement Anxiety Test (AAT), which had been translated into Spanish and Japanese. Those who didn't speak either of these languages took the test in English, with teacher assistance.

The state anxiety questionnaire on reactions to test types

was not repeated in this study, since introspective data on state anxiety had proved so fruitful in the previous investigation.

Taped oral interviews (supplemented with written notes) were conducted within twenty-four hours of the placement battery. Neither the students nor the interviewer was aware of examination results or placement levels at the time of the interviews. Again the general interview guide approach was used, and again only one interviewer was present. The sessions were planned for twenty minutes each, but extra time was allowed for students who desired to continue longer than this.

Findings and discussion

Test results. AAT scores on these subjects divided them into three groups--five in the HA range (with scores from 30 to 38), four in the LA range (scores from 13 to 19), and the remaining eight students in the middle groups (scores from 22 to 28). Results from the placement battery identified eight students as beginners (levels 1 and 2), one student as intermediate (level 3), and eight students as advanced (levels 4 and 5).

Of the five HA subjects, two were beginners; one was intermediate; and two were advanced. And of the four LA subjects, two were beginners and two were advanced. There was also an even split between high and low proficiency students at the "neutral" or mid-anxiety range, with an even distribution by sex. HA subjects included two males and three females; they were from four different language backgrounds. The LA students included one male and three females--all Latins (three being Spanish speakers and one a Portuguese speaker).

Interview findings. Of interest was the fact that while listening was one of the two most difficult subtests for these students, it was perceived as being one of the two easiest. And even though HA subjects outscored LA subjects on every section of the battery, LA students were unanimous in rating the listening, speaking, and grammar subtests as 'easy,' while HA students tended to view them as rather difficult. Overall, the seventeen subjects ranked the grammar test as easiest, followed by the listening and the the speaking tests. The writing test was viewed as next to the most challenging, with the reading test seen as most difficult.

As in Study One, the interviews were helpful in explaining the reasons for the stress experienced on the test battery.

Like the graduate students in the first study, there was a tendency for HA subjects to be concerned about the amount of time allocated for the exam. The three with the highest anxiety ratings each indicated the need for more time. For example, the most anxiety prone student said he felt particularly disadvantaged on the reading test since he was a slow reader. The three with the lowest anxiety ratings, on the other hand, indicated they had sufficient time for the test battery. And the least anxiety prone of all observed that being pressed for time was desirable since it helped one cope with other timed tasks. (One HA subject added that reminders of time remaining were stressful to her; but others--in the mid-anxiety and LA ranges--favored being notified of the time remaining.)

Another parallel with the first study was student reaction

to exam length. Four out of the five HA subjects indicated the battery was too long. It was suggested that the test be spread over two days so they could concentrate more effectively. By contrast with these reactions, not one of the LA subjects criticized the length of the test.

Since ESL affect studies have focussed so frequently on the relationship between test form and test anxiety, Study Two probed the reasons for negative reactions to differing test types. As in Study One, student reactions seemed often to stem from factors beyond the form of the test. More than one who had reacted negatively to the grammar test explained that the reason for this was their being pressed for time while taking it. Another said she didn't like the oral interview because she had expected a paper and pencil test and didn't know she was to be interviewed; this seemed to disorient her, making her "confused and afraid." Three subjects said the listening test caused them anxiety because the quality of the tape was unclear in places; and two others expressed frustration because of a numbering miscue on the test.

As in the previous study, personal factors entered in. One male student complained of jet lag that he felt affected his performance on the final two subtests. Another student claimed that the overly efficient central heating caused her discomfort while taking the test. And two others felt their performance would have been improved if they had been paced better with additional cues on the remaining time available.

However, one concern these pre-college ESL students expressed

that the graduates in Study One did not was anxiety resulting from unfamiliar tests. Again, it was HA subjects that voiced the concern; LA people expressed no such reaction. In fact, one LA student commented positively on the unfamiliar listening test, saying she hadn't understood the items at first but comprehended them better and better as that subtest progressed.

Because of interesting comments in the first study on strategies used in preparing for the exam, this matter was raised as well in the second study. But only one of the seventeen subjects (a HA student) indicated any serious preparation for the exam. There appeared to be a general feeling that it was fruitless or unnecessary to make intensive, final preparation for a skills test such as this.

An unexpected bonus in both studies was the gratitude expressed by students for what they saw as a rare opportunity to interact extensively with teachers on their exams.

Conclusions

Utilization of qualitative procedures in assessing test impact in two instructional programs has served to complement and extend the findings from classical empirical research.

Results relating to the influence of test <u>form</u> suggest that earlier interpretations may be somewhat simplistic and that other factors such as question difficulty, clarity of instructions, and time constraints may equal or exceed the importance of form. And while students might specify one subject (such as the testing class) or subskill (such as writing) as being

more anxiety producing than another, other factors such as practice effect and unfamiliar test item types were seen by examinees as the real contributors to lessened or heightened test anxiety.

Moreover, additional information on trait anxiety was gathered. Again it was demonstrated that those tending to be anxiety prone have a unique profile in terms of their reactions to exams and exam conditions. Hypotheses generated by this research include the following: Might relaxed time constraints for anxiety-prone students result in improved measurement of their proficiency? Might shorter examination batteries result in improved measurement of the anxiety prone? Might a more careful pre-examination orientation improve the performance and reduce the anxiety of these same students? Is group study more effective than individual study for anxiety-prone students?

Finally, it would seem that systematic interaction between teachers and students on test evaluation and test affect have the potential not only for improving rapport in the classroom but also for improving evaluation, particularly of students who are most susceptible to test anxiety.

REFERENCES

Allwright, Dick. 1983. Classroom-centered research on language teaching and learning: a brief historical overview. TESOL Quarterly 17(2):191-204.

Alpert, R., and R. N. Haber. 1960. Anxiety in academic achievement situations. Journal of Abnormal Psychology. 61:207-215.

Bailey, Kathleen M. 1980. An introspective analysis of an individual's language learning experience. In Research in second language acquisition: selected papers of the Los Angeles Second Language Research Forum, Stephen D. Krashen and Robin Scarcella (Eds.), 58-65. Rowley, Massachusetts: Newbury House.

Cohen, Andrew D. and Carol Hosenfeld. 1981. Some uses of mentalistic data in second language research. Language Learning 31(2):285-313.

Cohen, Robert Michael. 1971. Effects of feedback on test anxiety and performance as a function of certain personal characteristics." Ph.D. dissertation, New York University.

Gaies, Stephen J. 1983. The investigation of language classroom processes. TESOL Quarterly 17(2):205-217.

Gaudry, Eric, and Charles D. Spielberger (Eds.) 1971. Anxiety and Educational Achievement. New York: Wiley.

Groot, P. J. M. 1976. Luistervaardigheid. Frans. Delta. Engels. Doelstelling en toetsing. Amsterdam: Meulenhoff.

Holmes, Charles Curtis. 1972. Specific effects of test anxiety on reading comprehension as measured by the cloze procedure. Ph.D. dissertation, University of Georgia.

Jones, Randall L. and others. 1980. Evaluating affective variables in second-language testing. Paper presented at the Fourteenth Annual TESOL Convention, San Francisco, California.

Larsen-Freeman, Diane. 1981. The "what" of second language acquisition. In On TESOL '81, Mary Hines and William Rutherford (Eds.), 107-128. Washington, D.C.:TESOL.

Long, Michael H. 1980. Inside the black box: methodological issues in classroom research on language learning. Language Learning 30(1):1-42.

Madsen, Harold S. 1982. Determining the debilitative impact of test anxiety. Language Learning 32:(1)133-143.

Madsen, Harold S., Randall L. Jones and Bruce L. Brown. 1984. Evaluating student attitudes toward second language tests. Forthcoming

Maluf, Sheila. 1979. The use of native language cues in evaluating listening skills of low proficiency learners. M.A. thesis, Brigham Young University.

Morris, Larry W., C. S. Finkelstein, and W. R. Fisher. 1976. Components of school anxiety: Developmental trends and sex differences. Journal of Genetic Psychology 128:49-57.

Mullen, Karen A. 1979. An alternative to the cloze test. In On TESOL '79, Carlos Yorio, Kyle Perkins, and Jacquelyn Schachter (Eds.), 187-192. Washington, D.C.:TESOL.

Ochsner, Robert. 1979. A poetics of second language acquisition. Language Learning 29(1):53-80.

Patton, Michael Quinn. 1980. Qualitative evaluation methods.

Beverly Hills: Sage Publications.

Prestwood, J. Stephen, and David J. Weiss. 1978. The effects knowledge of results and test difficulty on ability test performance and psychological reactions to testing. Research Report 78-2. Resources in Education. Minneapolis: Minnesota University. ED 166 232.

Radford, John. 1974. Reflections on introspection. American Psychologist 29:245-250.

Rosenzweig, Steven Jeffrey. 1974. The effects of examiner anxiety level, student test anxiety level, and examiner-student sex interaction, on student performance in a group test-taking situation. Ed.D. dissertation, Boston University School of Education.

Savignon, Sandra J. 1972. Communicative competence: an experiment in foreign language teaching. Philadelphia: The Center for Curriculum Development, Inc.

Schumann, Francine M. and John H. Schumann. 1977. Diary of a language learner: an introspective study of second language learning. In On TESOL '77, H. Douglas Brown, Carlos Yorio, and Ruth Crymes (Eds.), 241-249. Washington, D.C.: TESOL.

Scott, Mary Lee and Harold S. Madsen. 1983. The influence of retesting on test affect. In Issues in language testing research, John W. Oller, Jr. (Ed.), 270-279. Rowley, Massachusetts: Newbury House.

Scovel, Thomas. 1978. The effect of affect on foreign language learning: a review of the anxiety research. Language Learning 28:99-104.

Shohamy, Elana. 1980. Students' attitudes toward tests: Affective considerations in testing. Paper presented at the Fourteenth Annual TESOL Convention, San Francisco, California.

Spielberger, Charles D. 1966. Theory and research on anxiety. In Anxiety and behavior, Charles D. Spielberger (Ed.) New York: Academic Press.

Stevenson, Diana G. 1979. The experimental evaluation of test affect. M.A. thesis, Brigham Young University.

Tryon, Warren W., and others. 1973. Test anxiety as a function of academic achievement, grade level, and sex in ghetto elementary school children. Paper presented at the annual meeting of the American Psychological Association, Montreal.

Warner, Ralph S., and James M. Kauffman. 1972. Effect of pre-arrangement of testing on anxiety and performance of second- and sixth-grade boys. Psychology in the schools 9:75-78.

Wildemuth, Barbara. 1977. (Introduction) Test anxiety: an extensive bibliography. TM Report 64. ED 152 860.

Zamel, Vivian. 1983. The composing processes of advanced ESL students: six case studies. TESOL Quarterly 17(2):165-187.